REMARKS

This Amendment is responsive to the Office Action dated March 29, 2004. Claims 1, 5-25, 27-38 and 40-67 are pending.

Claims 1, 34, 49, 62 and 65 have been objected to for the use of the term "object" as being unclear. Although the Applicants do not agree with the Examiner, the term has been removed from the listed claims nonetheless.

The claims have been rejected under §103(a) as unpatentable primarily over Van Tyne in combination with at least three other references for each rejection. These other references include Adelson, Lausier, Bett et al., Dante et al. Lewis, Jr. et al., Bridges, Smith, Jr., and Buckson. In the Applicant's opinion, the Examiner's lengthy, piecemeal composite of at least four references for each claim rejection is near the limits. Nonetheless, in view of the new amendments and remarks, the Applicant respectfully requests reconsideration.

In response, the Applicants have amended the claims in a manner they believe distinguish the invention over the vast art cited. In an exemplary claim, claim 1 has been amended to recite a method for inspection of a roll of web material through a web inspection system, including inspecting a roll of web material to determine the number, type and location of one or more detectable defects along the web material; and outputting an electronic data representation of the roll map, including real-time visual images of the one or more detectable defects. The method further includes storing the electronic data representation to enable subsequent retrieval thereof, and performing a Self-Diagnostic Test on the inspection system to determine the performance of the web inspection by the inspection system. The Self-Diagnostic Test includes measuring or retrieving certification data applied during the inspection; and comparing the applied certification data to standardized certification data to determine whether the applied certification data was within the predetermined range of tolerances. Finally, the method includes performing a System

Integrity Test measuring performance and calibration of predetermined components the web inspection system; and <u>certifying the accuracy of the roll map electronic data representation of the inspected web material to be within a predetermined range of tolerances set for that web material</u>.

In accordance with the present invention, an electronic data representation is generated that includes visual images of each detected defect. As stated in the present pending application, at page 17, lines 19-22, "[i]mages of defects are provided in real-time, along with location details and alarms, if desired. All inspection parameters and defects located are stored in the local database of the Remote Server 31 for later usage." Hence, unlike the cited art, the entire data representation is stored to permit subsequent retrieval in real-time. This is useful when it is necessary to check or re-review the inspection defect data. For instance, during an inspection run, only some of the detected defects are displayed on a monitor, in real-time. However, should a need be required, the operating technician can back-up the electronic data roll, view an image of any previous defect that had been detected, and then resume normal sampling without every interrupting the inspection.

Moreover, the present invention certifies the accuracy of the <u>results</u> for a particular material web inspected to be within predetermined parameters. This certification applies to that particular web material to verify the web inspection accuracy. In other words, the accuracy of the results themselves are tested using a predetermined array of measures, as opposed to merely verifying a single component such as the web velocity. As set forth at page 12, lines 6-20, of the present pending application:

> [T]he "certification" assures with a substantial degree of accuracy that the machine vision hardware (i.e., the web inspection system 21) is calibrated and operating correctly both before and during the inspection process. This signifies, as will be discussed, that a self-diagnosis has been performed done within a specified time, and the signals from the cameras are consistent with correct operation of the system. The "Product Inspection Certificate" further assures that the correct system setup parameters for the particular web product being inspected are being used. The customer's engineering staff typically sets up

these parameters to achieve the desired level of defect detection, on a product-by-product basis. The Product Inspection Certificate specifies which set of parameters were used, and that they have not been altered. Finally, another main objective of the Product Inspection Certificate is to assure that the flaw report and roll map are what the system generated, and not a fabrication.

Applying a combination of the electronic data representation retrieved, and the certification of the results, the web inspection system can report any changes in defect detection parameters during the actual inspection. (i.e., "comparing the applied certification data to standardized certification data to determine whether the applied certification data was within the predetermined range of tolerances"); display the image of every defect image on web to verify that the roll map report is correct (i.e., "outputting an electronic data representation of the roll map, including real-time visual images of the one or more detectable defects"); generate a new roll map report based on decisions by an operator to cull out defective regions (i.e., "measuring and retrieving certification data applied during said inspection"); and enable the operator to reclassify defects and reprint defect report based on an operator decision to change defect parameters such as defect type (i.e., "measuring and retrieving certification data applied during said inspection").

In contrast, Van Tyne, alone or in combination, does not suggest, mention or imply an inspection system capable of outputting <u>an electronic data representation of the roll map, including real-time visual images of the one or more detectable defects</u>, or that <u>stores the electronic data representation to enable subsequent retrieval thereof.</u> Van Tyne merely detects and analyzes the defect, and then prints the defect report in a table format shown in TABLE I. Van Tyne does not generate an image for each defect, and enable subsequent review, real-time or otherwise, for each and every defect.

Moreover, Van Tyne does not certify the accuracy of the inspection results in the manner of the present invention. The Examiner cites col. 6, line 50 through col. 7, line 50, as relating to the certification of the accuracy of the web inspection. The Applicants disagree,

and submit that timing circuitry that includes yardage counters and velocity correction circuitry hardly relates to certifying the web inspection results are accurate to within predetermine tolerances, as the present invention suggests. In view of the foregoing arguments and amendments, withdrawal of the §103(a) rejections are respectfully requested
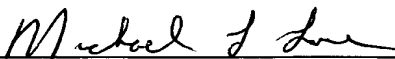
Conclusion

In light of the above amendments and remarks, the Applicant respectfully requests that the Examiner reconsider this application with a view towards allowance. It is believed that all claims now pending and all new claims fully and patently define the subject invention over the cited art of record and are in condition for allowance.

If the Examiner has any questions concerning this case, the Examiner is respectfully requested to contact Michael L. Louie at (510) 843-6200.

The Commissioner is hereby authorized to charge any additional fees, including any extension fees, which may be required or credit any overpayment directly to the account of the undersigned, No. 50-0388 (Order No. WEB1P003).

Respectfully submitted,
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